

Abels, Eileen G., Keith W. Cogdill & Lisl Zach, (2002). The Contributions of Library and Information Services to Hospitals and Academic Health Science Centers: A Preliminary Taxonomy. *Medical Library Association*, 90(3), pages 276-283.

This article describes a research project conducted to develop taxonomy of the contributions of library and information services in the health sector. The study was conducted through 5 phases (literature review, initial taxonomy, interviews, focus groups, and questionnaires). The taxonomy was developed using a balanced scorecard approach of quantitative and qualitative measures of an organization's performance. The initial performance measures focused on financial, internal business, customer, and learning and innovation perspectives, with adjustments made later based on results of each phase.

American Records Management Association (ARMA). 2004. URL Available at: <http://www.arma.org/>, accessed on 09/29/04.

This site is aimed at records management professionals (including special librarians), but does not have much information on measuring library value and return on investment. This organization publishes the Information Management Journal.

Arnau, Randolph, Russel L. Thompson, & Colleen Cook, (2001). Do Different Response Formats Change the Latent Structure of Responses? An Empirical Investigation Using Taxonometric Analysis. *Educational and Psychological Measurement*, 61, pages 23-44.

This article covers the psychometric implications of using different user interfaces for eliciting responses to survey items. The implications of these findings for the construction of Web-based surveys are discussed.

Berger, Kenneth W. & Richard W. Hines (1994). What Does the User Really Want? The Library User Survey Project at Duke University. *Journal of Academic Librarianship*, pages 306-310.

This article provides information about the research that had been done at Duke's library. It explains some differences among different groups (undergrad. students, grad students, professors, admin. Staff, etc.).

Cook, Colleen & Fred Heath, (2000). The ARL LibQUAL Project: An Update. *ARL Newsletter: A Bimonthly Report on Research Library Issues and Actions from ARL, CNI, and SPARC* 211, pages 12-14.

The author discusses web-based survey SERVQUAL in detail and its weaknesses. The author further discusses LibQUAL about how it was developed after conducting a series of interviews with faculty, graduate students, and undergraduates in order to ascertain their views on what constitutes quality library service. The original SERVQUAL instrument contained 22 questions to measure service quality across dimensions (tangibles, reliability, responsiveness, assurance, empathy). In addition to the questions contained in the standard SERVQUAL instrument, a battery of other questions was added to LibQUAL in two dimensions.

Cook, Colleen, Fred Heath, & Bruce Thompson, (2000). Higher-order Factor Analytic Perspectives on Users' Perceptions of Library Service Quality. *Library Information Science Research*, 22, pages 393-404

In this article, the author mentions a study done that explored SERVQUAL score validity in the library service context. The author mentions the need for libraries to focus more directly on their role as service providers and need to explore mechanisms to gauge their performance as *service agents*. The author mentions that after extensive qualitative and quantitative study it was theorized that service quality is a higher-order abstraction consisting of five primary-order dimensions: tangibles, reliability, responsiveness, assurance, and empathy. SERVQUAL was constructed to assess total service quality service through these five dimensions. The article summarizes by mentioning that SERVQUAL was validated as an assessment tool for validating service quality in libraries and it measures three primary-order dimensions that generalize into a higher-order factor of quality service.

Cook, Colleen, Fred Heath & Bruce Thompson, (2000). LibQUAL: One Instrument in the New Measures Toolbox. *ARL Newsletter: A Bimonthly Report on research Library Issues and Actions from ARL, CNI, and SPARC* 212, pages 4-7.

In this article the author talks about the relationship between the *provision of physical collections and user perceptions of library service quality*. The author summarizes that users do perceive library service at a global level; there appears to be a single, second-order factor associated with the delivery of quality library services in a research university environment. The author also mentions that research library users simultaneously think about library quality at multiple levels, and all of the elements used in the LibQUAL survey suffuse the second-order factor.

Cook, Colleen, Fred Heath & Russell L. Thompson, (2000). A Meta-analysis of Response Rates in Web-or Internet Based Surveys. *Educational and Psychological Measurement* 60, pages 821-836.

In this article, the author expresses his concern over raising the response rates of electronic surveys. The author mentions that response rates for e-mail surveys appear to be somewhat lower than those of the traditional mail surveys. The author says that the researchers should begin to assess ways to increase the response rate to utilize the electronic mode of survey delivery. The author also discusses that if the Web is used for general population survey, it will only have advantages over traditional modes of data collection, if it is used for specific populations that are known to be Internet savvy.

Cook, Colleen & Bruce Thompson, (2000). Reliability and Validity of SERVQUAL Scores Used to Evaluate Perceptions of Library Service Quality. *Journal of Academic Librarianship*, 26, pages 248-258.

This article questions the validity of SERVQUAL as a test instrument (i.e., does it actually measure what it intends to measure, or is the instrument useful for assessing quality service in the library setting, and is it reliable and accurate in doing so?). Each of the participants were asked to respond to all the SERVQUAL questions from three perspectives (1) a minimally acceptable library performance, (2) a desired library

performance and (3) a perceived, actual library performance on the SERVQUAL dimensions.

Cook, Colleen, (2001). Score Reliability in Web-or Internet-based Surveys; Unnumbered Graphic Rating Scales Versus Likert-type Scales. *Educational and Psychological Measurement*, 61, pages 697-706.

In this article, the author assesses the reliability of the scores from the surveys done by hand. The author advocates the use of Web-based graphic sliders to overcome the practical problems of administering graphic scales on paper measures. The article focuses on the study done to investigate whether graphic scales improved score reliability. In the study a large sample size and diverse respondent groups were employed so that more confidence could be invested in results.

Cook, Colleen, Fred Heath & Bruce Thompson, (2001). Users' Hierarchical Perspectives on Library Service Quality: a "LibQUAL" Study. *College and Research Libraries*, 62, pages 147-153.

This article attests that users perceive library quality on multiple levels and shows how the LibQUAL tool addresses this issue.

Crist, Margo, Peggy Daub & Barbara MacAdam, (1994). User Studies: Reality Check and Future Perfect. *Wilson Library Bulletin*, pages 38-42.

This article talks about different user groups, their expectations and wishes.

Cullen, Rowena J. & Philip J. Calvert, (1995). Stakeholder Perceptions of University Library Effectiveness. *Journal of Academic Librarianship*, 21(6), pages 438-449.

This study explores whether or not academic libraries in New Zealand are effective in their performance. The survey was sent to library staff and students who were asked to rank elements of library performance and how library resources are allocated to provide a perspective on library effectiveness.

Davis, Denise M. Network Performance Measures Focus Group (2001). Group Discussion #3 Summary Notes, pages 1-25.

This is a meeting summary of a meeting that occurred in January of 2001, which was coordinated by NCLIS. The summary provided a brief explanation of background and objectives of the focus group and briefly lists the remarks given by the various participants on things such as vendor-based statistics, re-purposing of data collected, and the most important issue to be resolved regarding collection and reporting of vendor-based statistics. From there it outlines some of the comments by database vendors regarding their statistics.

This article not in appendix

Dreier, Thomas & George Nolte, (2003). Digital Copyright and Value Added Information Services. *Information Services & Use*, 23, pages 241-250.

This article discusses the digital copyright issues in response to technological and corresponding economic changes.

Ellis-Newman, Jennifer (2003). Activity-Based Costing in User Services of an Academic Library. *Library Trends*, 51(3), pages 333-338.

This is an excellent article that outlines what Activity-Based Costing (ABC) is, what the benefits are, and a seven-step methodology for implementing an ABC study in a Library environment. Good tool for INPUT!

Fraser, Bruce T. , Charles R McClure, and Emily H. Leahy. "Toward a Framework for Assessing Library and Institutional Outcomes." Libraries and the Academy 2002: 505-528.

This paper offers a framework for approaching the outcome assessment process in academic libraries by examining the findings from a discussion forum, site visits, an analysis of accreditation standards, and a survey of ARL member directors.

Garlick, Marina (1995). Public Library Performance Measures in NSW: An Update. *APLIS*, 8(1), pages 22-23.

This article announces the name change for the NSW Performance Measures Working Group to the new NSW Public Libraries Evaluation Group in celebration of their fifth birthday. The group is located in Australia and was formed to provide an information exchange and forum for discussion of issues in public library performance measurement.

Gedeon, Julie & Rubin, Richard (1999). Attribution Theory and Academic Library Performance Evaluation. *Journal of Academic Librarianship*, 25(1).

This article talks about performance evaluation considering all possible factors that have different inputs. For an example, it provides in details difference for male vs. female attributions.

Harris, Gwen & Joanne Marshall, (1996). Building a Model Business Case: Current Awareness Service in a Special Library. *Special Libraries*, 87(3), pages 181-195.

This is a case study at the Ontario Ministry of Finance Library. The study discusses how a cost-benefit analysis was used to prove the strategic and financial value of the services the library provides.

Hawkins, Margaret; Morris, Anne; & Sumsion, John (2001). Economic Value of Public Libraries. *APLIS*, 14(3), pages

The economic aspects of libraries have been discussed, from the approach to value, book lending cost, information cost, to the library use of throughout life is a fun to read and useful piece of information that we may face with in our further research. This article is based on the outcomes from the Loughborough University, United Kingdom.

Heath, Fred M. (2002). ARL Index and Other Validity Correlates of LibQUAL. *Libraries and the Academy*, 2(1), pages 27-42.

This study was conducted to address five research questions bearing upon the psychometric validity of LibQUAL+ scores. It was found that LibQUAL+ subscale and total scores were highly correlated with satisfaction scores in two independent sub-samples.

Hiller, Steve (2001). Assessing User Needs, Satisfaction, and Library Performance at the University of Washington Libraries. *Library Trends*, 49(4).

This article discusses university libraries' survey methodology and design and it explains survey results.

Holt, Glen & Donald Elliott, (2002). Cost Benefit Analysis: A Summary of the Methodology. The Bottom Line: Managing Library Finances. *Library Trends*, 15(4), pages 154-158.

This paper serves as a summary of how to apply the CBA methodology to allow one to estimate how much the services offered in a library are worth in monetary value.

Huff-Eibl, Robyn & Shelley Phipps, (2002). Using LibQUAL at the University of Arizona: Responding to Customer Input – Listening and Acting. *ARL Newsletter: A Bimonthly Report on Research Library Issues and Actions from ARL, CNI and SPARC*, 221, pages 12-13.

A reporting a how the University of Arizona used the results from the spring 2000 and 2001 LibQUAL+ surveys and some of the barriers they encountered.

International Coalition of Library Consortia (ICOLC), (2001). Guidelines for Statistical Measures of Usage of Web-Based Information Resources. URL available at: <http://www.library.yale.edu/consortia/2001webstats.htm>. Accessed 09/16/04.

This link gives guidelines for statistical measures of the usage of web based information resources. It outlines some minimum requirements and data elements that should be reported by members of the consortium. Some of the minimum requirements identified include: number of queries, number of sessions, number of menu selections, and number of full content units. Some other guidelines which are agreed upon by members of the consortium include guidelines on privacy and user confidentiality, access, delivery, and report formats.

Krueger, Richard A. (1994) Focus Groups: A Practical Guide for Applied research, 2nd ed. Thousand Oaks, CA: Sage

This article covers the importance of Focus Groups and gives a detailed approach on how to form, document, organize, prepare, solicit, evaluate and assess focus groups in working with applied research situations.

Not in notebooks.

Kyrillidou, Martha and Fred Heath, Measuring Service Quality. *Library Trends*, 49(4), 27-42.

The authors discuss the pilot project proposal by Texas A&M University to assess service quality in research libraries. The authors further mention the methodology used to conduct interviews to prepare the Web-based questionnaire to assess the library service quality. The authors discuss that understanding library quality will possibly lead to develop not only an understanding of preferred and best practices but also toward widespread recognition of standards for library quality.

Lankes, R. David, Melissa Gross & Charles R. McClure, (2003). Cost, Statistics, Measures, and Standards for Digital Reference Services: A Preliminary View. *Library Trends*, 51(3), pages 401-413.

This article discusses the current standards (utilization and technical) of digital library reference services and suggests the two standards should be considered together when costing, measuring and developing statistics for these services in libraries. By linking utilization and technical standards, the collection and analysis of digital reference services can be greatly enhanced.

Liu, Lewis G. (2003). The Cost Function and Scale Economies in Academic Research Libraries: *Library Trends*, 51(3), pages 293-311.

This article discusses the library output variables in terms of the total cost function. It further discusses the library outputs being measured by library collections, including volumes held, serials, audio and video materials, maps, graphs; and library services including library workshops and seminars in the form of group presentations, reference transactions, circulation service, and interlibrary loan services.

Liu, Lewis G. (2003). The Economic Behavior of Academic Research Libraries: Toward a Theory. *Library Trends*, 51(3), pages 277-292.

This article explores the relationship between the size of a libraries collection and the prestige of the university.

Luther, Judy (2000). White Paper on Electronic Journal Usage. Council on Library and Information Resources. URL available at:

<http://www.clir.org/pubs/reports/pub94/introduction.html>. Accessed on 09/16/04.

This reading discussed the challenges facing librarians when they need meaningful and useful usage data from publishers of electronic journals. The paper details problems faced by librarians as well as publishers. Luther reviews how and what statistics are currently collected and identifies issues that must be resolved before librarians and publishers feel comfortable with the data and confident in using them. Through her meetings with librarians and publishers, Luther found significant common ground on the types of concerns held.

Nielsen, Jakob. Heuristic Evaluation (of Web Sites), Ten Best Government Intranets. URL available at: <http://www.useit.com/>, Accessed 09/21/04.

Nielsen has a web site and offers consulting services for intranet analysis. Nielsen was involved in a study in the 1990s of government web sites. From that he developed a process for conducting a heuristic evaluation for usability, ten recommended heuristics for usable interface design, etc. He recommends that best practices call for devoting about 10% of a web project's budget to usability. Nielsen's estimate is that by redesigning a web site for better usability that usage can increase by 135%. The article lists the benefits for a government web site, best practices, and the ten best government intranets.

Not in notebooks

Oppenheim, Charles, Joan Stenson & Richard M. S. Wilson, (2003). The Attributes of Information as an Asset. *New Library World*, 102, pages 458-463.

This article discusses the attributes of information assets that can be used to enhance organizational effectiveness.

Oppenheim, Charles & David Stuart, (2004). Is There a Correlation Between Investment in an Academic Library and a Higher Education Institution's Ratings in the Research Assessment Exercise? *Aslib Proceedings: New Information Perspectives*, 56(3), pages 156-165.

This article discusses the possibility of there being a correlation between the Research assessment exercise ratings and the amount spent on the library.

Oppenheim, Charles, Joan Stenson, & Richard M. S. Wilson, (2003). Studies on Information as an Asset I: Definitions. *Journal of Information Sciences*, 29(3), pages 159-166.

This paper provides various definitions of data, information, and knowledge and discusses the relationships between the three. It also addresses information as an asset and situates it in the information and accounting fields.

Oppenheim, Charles, Joan Stetson & Richard M. S. Wilson, (2003). Studies on Information as an Asset II: Repertory Grid. *Journal of Information Sciences*, 29(5), pages 419-432.

This article details findings from interviews with senior executives in information-intensive UK organizations. The interviews were done using the repertory grid technique with the hope that it would enable the executives to identify attributes of information as an asset.

Oppenheim, Charles, Joan Stetson, & Richard M. S. Wilson, (2003). Studies on Information as an Asset III: Views of Information Professionals. *Journal of Information Sciences*, V(I), pages

This paper is a report on the findings from interviews with information professionals. There were several themes addressed, but overall the main conclusion was that studies in the field should view information assets in a very broad sense and that when trying to place a value on information we cannot just do so by using financial terms.

Outsell, "The Changing Roles of Content Deployment Functions: Government Information Professionals." *Outsell:Information Briefing* 6.18 (2003) .

This briefing from Outsell, Inc. covers top issues, which include roles and responsibilities, users and services, content deployment and spending, budgets and staffing, management and marketing practices specifically relating to government content deployment functions. The reading mainly draws conclusions on how the roles of various information professionals is changing in respect to each of the top issues.

Roosendaal, Hans E., et. al. (2003). Changes in the Value Chain of Scientific Information: Economic Consequences for Academic Institutions. *Online Information Review*, 27(2), pages 120-128.

This article discusses the strategies for digital collection and the role of publishing and archiving in having an impact on value chain of scientific information.

Saunders, E. Stewart (2003). Cost Efficiency in ARL Academic Libraries. *The Bottom Line: Managing Library Finances*, 16(1), pages 5-14.

This article discusses the means to measure the overall cost efficiency of a library and compares Frontier methods with accounting and productivity ratio methods.

Scigliano, Marisa (2002). Consortium Purchases: Case Study for a Cost-Benefit Analysis. *The Journal of Academic Librarianship*, 28(6), pages 393-399.

This article covers cost-benefit analysis, methodology, case study and tangible costs and benefits (input and output), from the Ontario Council of University Libraries.

Scott, Duncan & Michael Pecnik, (2003). How to Utilize Enterprise Information Architecture to Enable Enterprise Information Integration. *Factiva White Paper*, URL available at:

**http://www.factiva.com/collateral/download_brchr.asp?node=menuElem1506#white
Accessed 09/21/04.**

The authors discuss using content and technologies to create an information clearinghouse under an Enterprise Information Architecture (EIA). Thus, library services would be incorporated into the architecture through an Enterprise Information Integration (EII) or a Knowledge Management System (KMS) where benefits could be measured to support increased productivity, reduced costs, elimination of time wasted by highly paid knowledge workers search for information, elimination of wasteful spending by improving value of the existing system, a scalable infrastructure which can reduce deployment, training and maintenance costs. Many government agencies are considering the EIA approach. Library services are positioned as valuable components of an agency's EIA.

Not in notebooks

Schwartz, Randal L. (1998). Web Techniques Column 25. URL Available at : http://www.stonehenge.com/merlyn/Web_Techniques/col25.html, Accessed 10/01/04.

This article contains detailed technical description/instruction for a method to gather web exit/referral data.

Not in notebooks

Shepherd, Peter T. & Denise M. Davis. "Electronic Metrics, Performance Measures, and Statistics for Publishers and Libraries: Building Common Ground and Standards." *Libraries and the Academy* 2002: 659-663.

This report focuses on the recent developments of metrics used by publishers librarians and information aggregators, focusing on the NISO standards for library statistics, the ARL new measures initiative, the ICOLC guidelines for web-based information resources statistics and Project COUNTER.

Sherwill-Navarro, Pamela J. & Addajane L. Wallace, (2004). Research on the Value of Medical Library Services: Does it Make an Impact in the Health Care Literature? *Medical Library Association*, 92(1), pages 34-41.

This was a research survey conducted to look at published articles discussing the value of library services and how it impacts health care literature as a whole. The article discussed 4 articles that were most cited by other articles as a method for discovering whether writing on the topic made a difference. The research may be useful for identifying articles the team may read (two of which have been read already), but is not useful for our project.

Silcox, Barbara P. & Paula Deutsh, "From Data to Outcomes: Assessment Activities at the NIST Research Library." Oct 2003. Special Libraries Association. June 2004.

The article describes assessment activities at NIST, specifically how customer surveys and benchmarks fit together to provide direction for the library's operational and strategic planning.

Snyder, Carolyn A. (2002). Measuring Library Service Quality with a Focus on the LibQUAL Project: An Interview with Fred Heath. *Library Administration & Management*, 16, pages 4-7.

This interview with the head of the LibQUAL project outlines the basic definitions and goals of the LibQUAL product.

Soderblom, Olaf (2004). Forwarding-Looking Baselining Adds New Dimension to Managing Change. *CIO.com Analyst Corner*. URL Available at: <http://www2.cio.com/analyst/report2763.html>, Accessed 09/21/04.

The author discusses Forward-Looking Baselining (FLB) that allows executives to understand and forecast the long-term effect of strategic and operational initiatives. FLB defines the operational requirements of various business strategies, and provides a change planning road map, enabling an organization (business) to take advantage of emerging tools and technologies, evaluate risks, conduct due diligence, and anticipate new needs. In other words, this is a way of measuring and planning in support of organizational resources and future changes (including budgeting).

Not in notebooks

Sumsion, John, Margaret Hawkins & Anne Morris, (2002). The Economic Value of Book Borrowing from Public Libraries; An Optimization Model. *Journal of Documentation*, 58(6), pp. 662-682.

This article is an economist's theoretical model that claims "it does not pretend to explain all of the issues" associated with a cost benefit analysis.

Thompson, Bruce, Colleen Cook & Fred Heath, (2001). How Many Dimensions Does it Take to Measure Users' Perceptions of Libraries?: A LibQUAL Study. *Portal: Libraries and the Academy* 1, no. 2, pp. 129-138.

In this article the author discusses the dimensions required to measure users' perceptions of library service quality. In October 2000 ARL introduced LibQUAL that expands upon and incorporates the twenty-two questions from SERVQUAL. SERVQUAL measures perceptions and expectations of five dimensions of service quality: tangibles, reliability, responsiveness, assurance, and empathy. LibQUAL added two more dimensions to SERVQUAL to measure service quality: Access to Collections and Library as a Place.

Thompson, Bruce, Colleen Cook & Fred Heath, (2000). The LibQUAL Gap Measurement Model: The Bad, the Ugly and the Good of Gap Measurement. *Performance Measurement and Metrics*, 1(3), pages 165-178.

This study investigates performance of scores on the scale for the 4407 LibQUAL+ Phase One participants using a gap measurement model to frame perceptions.

Thompson, Bruce (2002). Reliability and Structure of LibQUAL: Measuring Perceived Library Service Quality. *Libraries and the Academy*, 2(1), pp. 3-12.

A report covering two research questions: 1) how reliable are the LibQUAL+ scores? and 2) what were the dimensions underlying user perceptions of library service quality? This report also identifies the most appropriate scales to report LibQUAL+ scores to librarians, using the protocol to improve service quality.